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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,379	06/18/2001	Chang Nam Kim	CIT/K-148	6686
34610	7590	12/11/2003	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			BERCK, KENNETH A	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/882,379

Applicant(s)

KIM ET AL.

Examiner

Ken A Berck

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 17-26 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 17-26 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claims 1-12, 17-26 and 30-32 is acknowledged. The traversal is on the ground(s) that a search for the method claims would cover a search for the structure claims. This is not found persuasive because the same product could be made by a different manufacturing method, including forming insulation partitions before forming the first electrodes and depositing an electrode material only on the EL layers to form a plurality of second electrodes.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 9-12, 17-22, 26 and 30-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Hidler (US 6407502).

Regarding claim 1, Hidler discloses (fig 1) a full color organic EL display panel with first, second and third pixels (7a, 7b, 7c), a plurality of first electrodes (2), a plurality of second electrodes (4) perpendicularly intersecting the first, each of the pixels are

arranged in each of the intersecting positions and each pixel has the area different from one another according to luminous efficiency (figs 5a-5f and column 5, lines 59-62).

Regarding claim 2, Hidler discloses (fig 5a) each of the first pixels is arranged collinearly with the second and the third is arranged between the first and second.

Regarding claim 3, Hidler discloses (fig 1) auxiliary electrodes (5, column 6, lines 12-15) arranged at least around the pixels and in portions of the first electrodes.

Regarding claim 4, Hidler discloses (fig 4) insulating layers (3,9) and each of the auxiliary electrodes (5) is arranged at least one of around each pixel (7a-c, fig 1) and central portion of each third pixel.

Regarding claim 9, Hidler discloses (fig 5b) the third pixel (24) having a larger area than the first (28) or second (26).

Regarding claim 10, Hidler discloses (fig 5f) the pixels have a quadrangular structures which are the same.

Regarding claim 11, Hidler discloses (fig 5e) the pixels arranged into a delta structure.

Regarding claim 12, Hidler discloses (column 2, lines 8-55) the first electrodes being transparent and the second electrodes are made of metal.

Regarding claim 17, Hidler discloses (fig 1) a full color organic EL display panel with first, second and third pixels (7a, 7b, 7c), a plurality of first electrodes (2), a plurality of second electrodes (4) perpendicularly intersecting the first, each of the pixels are arranged in each of the intersecting positions, sub-pixels divided along diagonal

directions (fig 5e) and each pixel has the area different from one another according to luminous efficiency (figs 5a-5f and column 5, lines 59-62).

Regarding claim 18, Hidler discloses (fig 5e) the first pixel (large triangle) positioned in a pair of sub-pixels opposed along one diagonal direction (between the other two pixels) and the second and third are positioned in another pair of sub-pixels (smaller triangles) opposed along another diagonal direction.

Regarding claim 19, Hidler discloses (column 5, lines 59-62) the first light emitting pixel has the luminous efficiency lower than that of the second and third.

Regarding claim 20, Hidler discloses (fig 2) each of the first electrodes is formed under each of the pixels and connected portions (11).

Regarding claim 21, Hidler discloses (fig 1) auxiliary electrodes (5) formed on the first electrodes (2) at the connected portions (11).

Regarding claim 22, Hidler discloses (fig 1, fig 5) auxiliary electrodes formed in edge portions of the pixels.

Regarding claim 26, Hidler discloses (column 2, lines 8-55) the first electrodes being transparent and the second electrodes are made of metal.

Regarding claim 30, Hidler discloses (column 1, line 55-column 2, line 67) a driving circuit including an anode, cathode lines and display unit.

Regarding claim 31, Hidler discloses (fig 3) the cathode circuit arranged on both sides of the cathode line.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 8 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hidler (US 6407502) in view of Kobayashi et al. (US 6628067).

Regarding claims 5 and 24, Hidler discloses all of the above claim limitations but fails to clearly point out partitions.

Kobayashi discloses (fig 1) partitions (3) arranged among the second electrodes (6) in order to uniformly mix a plurality of luminous colors.

Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the display of Hidler with the partitions (3) arranged among the second electrodes (6) in order to uniformly mix a plurality of luminous colors, as taught by Kobayashi.

Regarding claim 8, Hidler discloses all of the above claim limitations but fails to clearly point out partitions.

Kobayashi discloses (fig 1) partitions (3) arranged to not overlap with corner portions of the pixels in order to uniformly mix a plurality of luminous colors.

Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the display of Hidler with the partitions (3) arranged to not overlap with corner portions of the pixels in order to uniformly mix a plurality of luminous colors, as taught by Kobayashi.

Claims 6 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hidler (US 6407502) in view of Kondo et al. (US 6633134).

Hidler discloses all of the above claim limitations but fails to clearly point out encapsulating plates.

Kondo discloses (fig 5) encapsulating plates (23) for encapsulating organic EL layers arranged on the first, second and third light emitting pixels and an encapsulating material for bonding the plates to the substrate (column 3, lines 60-65) in order to protect against moisture.

Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the display of Hidler with the encapsulating plates (23) for encapsulating organic EL layers arranged on the first, second and third light emitting pixels and an encapsulating material for bonding the plates to the substrate (column 3, lines 60-65) in order to protect against moisture, as taught by Kondo.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hidler (US 6407502) in view of Hamada et al. (US 5144288).

Hidler discloses all of the above claim limitations and having zigzag-shaped electrodes (2,4) but fails to clearly point out partitions.

Hamada discloses (3a, 3b) zigzag-shaped electrodes having partitions (column 10, lines 17-24) inclined at a certain angle for connection between each of the first and second pixels and stripe shaped electrodes for connecting between each of the third pixels (claim 1) in order to make stripe patterns less conspicuous.

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Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the display of Hidler with the zigzag-shaped electrodes having partitions (column 10, lines 17-24) inclined at a certain angle for connection between each of the first and second pixels and stripe shaped electrodes for connecting between each of the third pixels (claim 1) in order to make stripe patterns less conspicuous, as taught by Hamada.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hidler (US 6407502) in view of Yamada (US 6366025).

Hidler discloses all of the above claim limitations but fails to clearly point out the area ratio.

Yamada discloses (fig 9) the ratio of the pixels is 3:6:1 in order to facilitate the control of white balance in the color display.

Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the display of Hidler with the ratio of the pixels is 3:6:1 in order to facilitate the control of white balance in the color display, as taught by Yamada.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken A Berck whose telephone number is (703)305-7984. The examiner can normally be reached on Mon-Fri 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



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